APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,962	02/28/2002	Becky V. Berndt	P6495 US	6757

			EXAMINER
24033	7590	05/27/2004	NGUYEN, KIMBINH T

KONRAD RAYNES & VICTOR, LLP
315 S. BEVERLY DRIVE
210
BEVERLY HILLS, CA 90212

ART UNIT	PAPER NUMBER
2671	6

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

		Application No.	Applicant(s)
Office Action Summary		10/086,962	BERNDT ET AL.
		Examiner	Art Unit
		Kimbinh T. Nguyen	2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 March 2004*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5, 15, 24 and 34* is/are allowed.

6)☒ Claim(s) *1-4, 6-14, 16-23, 25-33 and 35-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to amendment filed 3/24/04.

2.   Claims 1-39 are pending in the application.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-4, 6-14, 16-23, 25-33, 35-39 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Blumenau et al. (6,421,711) in view of Tawil et al. (6,625,747).

Claim 1, Blumenau et al. teaches graphically displaying source device (a

graphical display 140 of disk spreads in 2D and 3D of the host processor; col. 18, line

58 through col. 19, line 47; figs. 14 and 15); graphically displaying target device (col. 29,

lines 15-57; fig. 30); displaying a first data path between source device and target

devices (col. 13, lines 46-50; path 348; col. 29, lines 49-52; fig. 30); Blumenau does not

teach in response to a failure in the first data path; however, Tawil et al. teaches in

response to a failure in the first data path: graphically indicating the failure in the first

data path; displaying a failover data path (col. 6, lines 5-16). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to incorporate

communication paths taught by Tawil into the graphical user interface for virtual sports

of data storage system of Blumenau's system for performing failover operations,

because graphically monitoring a failure in the path, the system would identify paths and
controllers to enable more efficient, scalable failover within a SAN (storage area
network), col. 2, lines 29-31.

Claim 2, Blumenau et al. teaches displaying component of application host (host
controller port; col. 19, lines 28-30); displaying storage system of target device (volume
user; fig. 30).

Claim 3, Tawil teaches eliminating the graphical display of the first data path
(multipathing driver is simplified; col. 5, lines 27-28; col. 6, lines 54-55). **Claim 9**, Tawil
discloses displaying a third link between the first and second target devices (fig. 2, the
link between the first port 66 and the second port 70). It would have been obvious to
one of ordinary skill in the art at the time the invention was made to incorporate data
paths taught by Tawil into the graphical user interface for virtual sports of data storage
system of Blumenau's system for performing failover operations, because it would
identify paths and controllers to enable more efficient, scalable failover within a SAN
(col. 2, lines 29-30).

Claim 6, Blumenau et al. discloses displaying a second data path between
source device and target device (col. 42, lines 48-51). **Claim 7**, Blumenau discloses
displaying two source devices (volume source, adapter port; fig. 30); displaying two
target devices (volume user, controller1; fig. 30; col. 35, lines 4-17); displaying the first
data path between a first of the two source and target devices; displaying the second
data path between a second of the two source and target devices (two full redundant
paths; col. 11, lines 62-65; col. 42, lines 48-51). **Claim 8**, Blumenau discloses displaying

two host adapters (adapter ports); displaying two storage units (storage devices; col. 30; lines 45-49).

Claim 4, Blumenau discloses displaying a first link between source device (host) and target device (SCSI link; col. 9, lines 47-48) and animating the first link to indicate the first data path has not failed. Blumenau does not teach animating the first link; however, Blumenau teaches idle signals are transmitted over the links to enable detection of link failure (col. 11, lines 43-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize The Fiber Channel taught by Blumenau for detecting of a link failure, because it would provide a mechanism for the network to automatically detect certain changes of state which may indicate that the configuration of the system has changed (col. 11, lines 43-46).

Claim 10, Tawil discloses animating the third link (a signal path in a multipathing device driver) to indicate the third link is being used as a failover path (the signal path has failed or malfunctioned; col. 6, line 65 through col. 7, line 20). Tawil does not teach animating the third link, however, Tawil teaches to detect signal path failure or malfunction using a number of techniques such as assigning the port name, rerouting to change the port name (col. 6, lines 45-62; col. 7, lines 5-20) and these techniques would relate to animating. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the rerouting technique for animating the link, because it would monitor the flow of information through different signal paths (col. 4, lines 25-26).

Claims 11-14, 16-23, 25-29, the rationale provided in the rejection of claims 1-4,

6-10 is incorporated herein.

Claims 30-33 and 35-39, the rationale provided in the rejection of claims 1-4 and

6-10 is incorporated herein. In addition, Blumenau teaches a machine readable program

storage device (col. 3, lines 19-22).

Allowable Subject Matter

5.   Claims 5, 15, 24 and 34 are allowed.

The following is a statement of reasons for the indication of allowable subject

matter:

The prior art does not teach ceasing the display of the first link; displaying a red-

colored portion on the first link; displaying the first link using a broken line.

Response to Arguments

6.   Applicant's arguments with respect to claims have been considered but are moot

in view of the new ground(s) of rejection.

The rejections of claims have been modified in this Office Action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Kimbinh Nguyen** whose telephone number is **(703)**

305-9683. The examiner can normally be reached **(Monday- Thursday from 7:00 AM**

to 4:30 PM and alternate Fridays from 7:00 AM to 3:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Part II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

May 24, 2004

Kimbinh Nguyen

Patent Examiner AU 2671